Work Ord			. 0714	*105	5997*							Page 1
Item ID: Revision ID: Item Name:	646.3714 GUSSET		646.3714 B105997	Accept	*N900	040	100)*	Setup S	Start Stop		S1* S2*
Start Date: Required Date: Reference:	8/28/13	Start Qty: 5.00 Req'd Qty: 5.00	*5* *5*		Cust Item Customer:						i Vi	. 7
Approvals:	Process Pl	an: MLJ	Date: <u>\3~0</u> 8°-7	☐ Tooling: SPC (Y/N):		oate:		1		Start Stop	*N *N	R1* R2*
Sequence ID/ Work Center I	D	Operation Description		Set Up/ Run Hours	Tool ID	Tool#	Plan Code	Accept Qty	Rejec Qty		Reject Number	Insp. Stamp
Draw Nbr	Re	vision Nbr										
646.3700												
110				0.00								
110 Waterjet FLOW CNC Water	jet	Memo 1-Cut as p Dwg Rev: Prog Rev:		0.00			*	_5		1117		Jm3-100
		2-Deburr i	if necessary									
120		QC2-Inspect parts off	machine FAI/FAIB	0.00				E	^			
120		Memo		0.00				5				Jm3-10-06

Quality Control

		ļ									D	QA:	Da	ite:	
NCR: Y	'es	/ No				WORK ORDER NON-	CO	VFORM	ANCE / UP	DATE					
											QA Clo	sed:	Da	ite:	
Work Orde	·r·	:				DISPOSITION				AGAINST DE	PARTM	ENT	/PROCESS		
WOIK OIGE	-					Rework	7		Skid-tube	Crosstube	1		Water Jet		Engineering
Part N	lo.					Scrap	1		Machining	Small Fab	1	Pro	d. Eng. Coor.		Quality
	-	i				Use-as-is	1		noforming	Finishing	Rec		re/Packaging	-	Other
NCR N	۱o.					Work Order Update	1		Large Fab	Composite			Supplier		
Root		i				ption of work order update	1	nitial		tion	Sign				
Cause	\dashv	Date	Step	Qty	(or Non-conformance	Ch	ief Eng	Desc	ription	Date	e	Verification	<u>n</u>	QC Inspector
Doc/Data	Щ	!													
Equip/Tooling	Щ						1								
Operator		į	İ												
Material											į		Į	ļ	
Setup														ļ	
Other		!													
Process															
Supplier		i													
Training											1				
Unapproved		į													
						F	AUI	T CATE	GORY						
Landi	ng G	iear				General	_	-			_				
		Bending				Bend	L	Grain			Ovalize	d			Pressure/Forced
		Centre No	ot Conce	ntric to	o/s	BOM/Route	L	Hardwa	re		Over/U	nder	tolerance		Temperature/Cure
		Cracks :				Broken/Damaged		Inspecti	on incomplete		Part inc	orre	ct		Weld
		Crushed/	Crimped			Burrs		Instruct	ions Incomplete/	Unclear	Part Los	st/Mi	issing		Wrong Stock Pulled
	П	Cuffs				Contamination		Mainte	nance		Part Mo	oved			-
	П	Heat Trea	at			Countersink		Mislabe	eled		Position	ned V	Vrong		
	П	Inspectio	n Strip in	Tube		Cut Too Short		Misread	1		Power	Loss/	'Surge		Other

Offset

Out of Calibration

Out of Sequence

Outside Dimensions

Turning Sequence

Wave/Twist in Tube

Ripples in Bend

Torque Waves in Extrusion

Drill Holes

Drawing

Finish

Folio

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Work Ord		5997		*10	599	7*						Page 2
tem ID: Revision ID: tem Name:	646.3714 GUSSET			Accept	*N	900	040	100)* s	Setup Sta	1 71	S1* S2*
Start Date: Required Date: Reference:	8/28/13 : 8/28/13	Start Qty: 5.00 Req'd Qty: 5.00		¯* ¯*		ust Item I ustomer:	D:					
Approvals:	Process Pl	an:	Date:	Tooling:		Da	ate:	_	F			R1*
•	QC:		Date:	SPC (Y/N):		Da	ate:			Ste	^{₀p} *N	R2*
Sequence ID/ Work Center I	D	Operation Description	widow i	Set Up/ Run Hours	8	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
130		QC8- Inspect parts - seco	ond check	0.00 DAS 27					<			
130 QC Quality Control		Memo		0.00 13	C 8				<u> </u>			
140		Bend as per dwg		0.00								8
140 Brake NC Brake NC		Memo		0.00					_>_			(3\10\
					AS							
150		QC5- Inspect part compl	leteness to step of		27 -89							
150		Memo		0.00 13	108				<u> </u>		_	

Quality Control

		!										DQA:	Da	te:	**
NCR: Y	'es	/ No				WORK ORDER NON-C	100	NFORM	MANCE / UPI	DATE				,	
											(QA Closed:	Da	te:	
Work Orde	· ·					DISPOSITION				AGAINST D	EΡ	ARTMENT/	PROCESS		
Work Orde	-	i				Rework	1		Skid-tube	Crosstube	٦		Water Jet		Engineering
Part N	lo.	i				Scrap			Machining	Small Fab	1	Proc	d. Eng. Coor.	П	Quality
	•	İ				Use-as-is	1		noforming	Finishing	7		e/Packaging		Other
NCR N	lo.	1				Work Order Update]		Large Fab	Composite			Supplier		
Root	ı				l	ption of work order update	1	Initial		tion		Sign &			
Cause		Date	Step	Qty		or Non-conformance	Ct	nief Eng	Desc	ription	\downarrow	Date	Verificatio	n	QC Inspector
Doc/Data							1				١				
Equip/Tooling		i	1				Ì				Ì				
Operator		'	İ												
Material		1	:												
Setup															
Other		1									1				
Process		į									1				
Supplier		:													
Training		1		Ì							Ì				
Unapproved		:													
		1				F	AUI	LT CATE	GORY						
Landi	ng (Gear				General		_							_
		Bending				Bend		Grain			_](Ovalized			Pressure/Forced
	Centre Not Concentric to O/S		o/s	BOM/Route		Hardwa	are			Over/Under	tolerance		Temperature/Cure		
	Cracks			Broken/Damaged		Inspect	ion Incomplete	Γ		Part Incorrec	:t		Weld		
		Crushed/	Crimped			Burrs		Instruct	tions Incomplete/	'Unclear	\neg	Part Lost/Mi	ssing	Г	Wrong Stock Pulled

Maintenance

Out of Calibration

Out of Sequence

Outside Dimensions

Mislabeled

Misread

Offset

Contamination

Countersink

Cut Too Short

Drill Holes

Drawing

Finish

Folio

Part Moved

Positioned Wrong

Power Loss/Surge

Other

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Turning Sequence

Wave/Twist in Tube

Ripples in Bend

Cuffs

Heat Treat

Inspection Strip in Tube

Torque Waves in Extrusion

Work Ord August-28-13				*105	997*							Pag	e 3;
Item ID: Revision ID: Item Name:	646.3714 GUSSET			Accept	*N900	040	100	* \$	Setup	Start Stop	1 7	S1* S2*	
Start Date: Required Date Reference:	8/28/13	Start Qty: 5.00 Req'd Qty: 5.00	*5* *5*		Cust Item I Customer:	D:					IV	.7/	
Approvals:	Process P	lan:	Date:	Tooling:	Da	ate:	-	J	Run	Start	*N	R1*	t
	QC:		Date:	SPC (Y/N):	Da	ate:				Stop	*N	R2*	t
Sequence ID/ Work Center 160 *160* Outsource4 Outsource process		1- Black And 2- PRIME A	ze per QSI017 4.1.10.1 ATG: 21743 odize as per Dwg 646.3700 S PER DWG, SEE NOTE of Comformity is required) #2	Tool ID	Tool#	Plan Code	Accept Qty	Qty	7	Reject Number	Insp. Stamp	
170 Packaging Packaging		Receive & Inspect for Da	mage & Mat'l Certs	0.00					1/2	<u> </u> 3	4/6	5	-)
180 *180* QC: Quality Control		QC5- Inspect part comple	eteness to step on W/O	0.00 SKP	1			S					

				WORK ORDER NON C	ONFOR	AANCE / HDDATE	DQA:	Water Jet Engineering Quality tore/Packaging Supplier	P
NCR: Yes	/ No			WORK ORDER NON-C	UNFORI	WANCE / UPDATE	QA Closed:	Date:	
Work Order:				DISPOSITION		AGAINST DE	PARTMENT	/PROCESS	
Part No.				Rework Scrap Use-as-is Work Order Update	Thern	Skid-tube Crosstube Small Fab Finishing Composite	4	d. Eng. Coor. re/Packaging	Quality
Root				Description of work order update	Initial	Action	Sign &		
Cause	Date	Step	Qty	or Non-conformance	Chief Eng	Description	Date	Verification	QC Inspector

Process Supplier Training Unapproved **FAULT CATEGORY Landing Gear** General Pressure/Forced Grain Ovalized Bend Bending Over/Under tolerance Temperature/Cure BOM/Route Centre Not Concentric to O/S Hardware Broken/Damaged Part Incorrect Weld Inspection Incomplete Cracks Part Lost/Missing Wrong Stock Pulled Instructions Incomplete/Unclear Crushed/Crimped Burrs Cuffs Part Moved Contamination Maintenance Positioned Wrong Countersink Mislabeled Heat Treat Other Misread Power Loss/Surge Inspection Strip in Tube Cut Too Short Drill Holes Ripples in Bend Offset Torque Waves in Extrusion Drawing Out of Calibration Turning Sequence Finish Out of Sequence

Outside Dimensions

Wave/Twist in Tube

Folio

Doc/Data
Equip/Tooling
Operator
Material
Setup
Other

Work Ord				*105	5997*							Page 4
Item ID: Revision ID:	646.3714			Accept	*N900	040	100)*	Setup	Start	*N	S1*
Item Name:	GUSSET									Stop	*N	S2*
Start Date:	8/28/13	Start Qty: 5.00	*5*		Cust Item I	D:						
Required Date Reference:	e: 8/28/13	Req'd Qty: 5.00	*5*		Customer:							
Approvals:	Process Pl	an:	Date:	Tooling:	Da	nte:	_		Run	Start	*N	R1*
	QC:		Date:	SPC (Y/N):	Da	ıte:				Stop	*N	R2*
Sequence ID/ Work Center 1 210 *210*	ID	Operation Description Identify as per dwg & St	ock Location STS	Set Up/ Run Hours	Tool ID	Tool#	Plan Code	Accept Qty	Rej Qty		Reject Number	Insp. Stamp DA8 26
Packaging		Memo		0.00				X	₹			92897
Packaging		***IDENTI REV***	FY AS PER APICAL MI	PP-120 BY STAMPING T.	HE P# AND					/	/3	-/1-7
220		QC21- Final Inspection	- Work Order Release	0.00			•	$\int \int_{\Gamma}$)	10/11	1
220 QC Quality Control		Memo		0.00				9	/ <u>K</u>	<u>m</u> .	13/11) MG	/1\ 11-07.
											13-	11-07.

		1									DQA.	Date	≛. •
NCR: Y	es /	No				WORK ORDER NON-C	ONE	ORN	MANCE / UPE	DATE	QA Closed:	Date	<u></u>
				•••		DISPOSITION	Т			AGAINST DE			
Work Orde	ŕ:						.				.	_	
Part N	o. <u> </u>					Rework Scrap		N	Skid-tube Machining oforming	Crosstube Small Fab Finishing	4	Water Jet d. Eng. Coor. re/Packaging	Engineering Quality Other
NCR N	o					Use-as-is Work Order Update			Large Fab	Composite	, Rec/sto	Supplier	Other
Root		:			Descri	ption of work order update	lni	itial	Act	ion	Sign &		
Cause		Date	Step	Qty	c	or Non-conformance	Chie	f Eng	Descr	iption	Date	Verification	QC Inspector
Doc/Data													
Equip/Tooling													
Operator													
Material													
Setup		·											
Other					[
Process		į											
Supplier		1					l						
Training		i											
Unapproved							<u> </u>						
						F	AULT	CATE	GORY				
Landir	ng Ge	ar				General					7	_	_
	В	ending				Bend	Щ	Grain			Ovalized		Pressure/Forced
	c	entre N	ot Conce	ntric to	o/s	BOM/Route	Ш۲	lardwa	re		Over/Under	tolerance	Temperature/Cure
	Cı	acks				Broken/Damaged	Ш"	nspecti	on Incomplete		Part Incorre	ct	Weld
	Ci	usheˈd/	Crimped			Burrs	Ш"	nstruct	ions Incomplete/U	Jnclear	Part Lost/M	issing	Wrong Stock Pulled
	C	uffs				Contamination		∕lainte	nance		Part Moved		
	Шн	eat Tre	at			Countersink		∕islabe	led	L	Positioned \	Vrong _	_
	lin	spectio	n Strip in	Tube		Cut Too Short		/lisread	1		Power Loss/	'Surge	Other

Offset

Out of Calibration

Out of Sequence

Outside Dimensions

Turning Sequence

Wave/Twist in Tube

Ripples in Bend

Torque Waves in Extrusion

Drill Holes

Drawing

Finish

Folio

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Page 1

August-28-13 11:52:25 AM

Work Order ID:

105997

Parent Item:

646.3714

Parent Item Name: GUSSET

Start Date: 8/28/13

Required Date: 8/28/13

Start Qty: 5.00

Required Qty: 5.00

Comments:

IPP REV:A 12.10.22 NEW ISSUE DD VERF:JLM

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Qty per Kit	Total Qty	Qty Issued	Date Issued	Status
M6061T6S.063 6061-T6 .063 Sheet		Purchased	No			110	sf	449.8695	0.265	1.394 737		Jm13-	10-06
				Location		Loc Qty	<u>Lo</u>	c Code					
				MAT021		449.8695							
				1231	35	120.2625							
				1240	03	72.113							
				M12	6075	257.494			120	2500			

NCR: Y	'es	/ No				WORK ORDER NON-	CON	VFORM	ΛANCE / UP	DATE	QA Closed:	Date:	
Work Orde Part N NCR N	 lo					DISPOSITION Rework Scrap Use-as-is Work Order Update		Therm	Skid-tube Machining noforming Large Fab	AGAINST DE Crosstube Small Fab Finishing Composite	Pro	Water Jet d. Eng. Coor. re/Packaging Supplier	Engineering Quality Other
Root Cause		Date	Step	Qty		ption of work order update or Non-conformance	1	nitial ief Eng		tion cription	Sign & Date	Verification	QC Inspector
Doc/Data Equip/Tooling Operator Material Setup Other Process Supplier Training Unapproved					-								
							AUL	T CATE	GORY				
Landir		Bending Centre No Cracks Crushed/ Cuffs Heat Trea Inspectio Ripples in	Crimped at n Strip in n Bend	ı Tube		General Bend BOM/Route Broken/Damaged Burrs Contamination Countersink Cut Too Short Drill Holes		Instruct Mainte Mislabe Misread Offset	ion Incomplete tions Incomplete/ enance eled d	/Unclear	Ovalized Over/Under Part Incorred Part Lost/Mi Part Moved Positioned V Power Loss/	ct ssing	Pressure/Forced Temperature/Cure Weld Wrong Stock Pulled Other
Torque Waves in Extrusion				n	Drawing		JOut of (Calibration					

Out of Sequence

Outside Dimensions

DQA:

Date:

Turning Sequence

Wave/Twist in Tube

Finish Folio

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DART AEROSPACE LTD	Work Order:	105997
	· · · · -	
Description: Gusset	Part Number:	646.3714
.·		
Inspection Dwg: (646.3300 Rev: A		Page 1 of 1

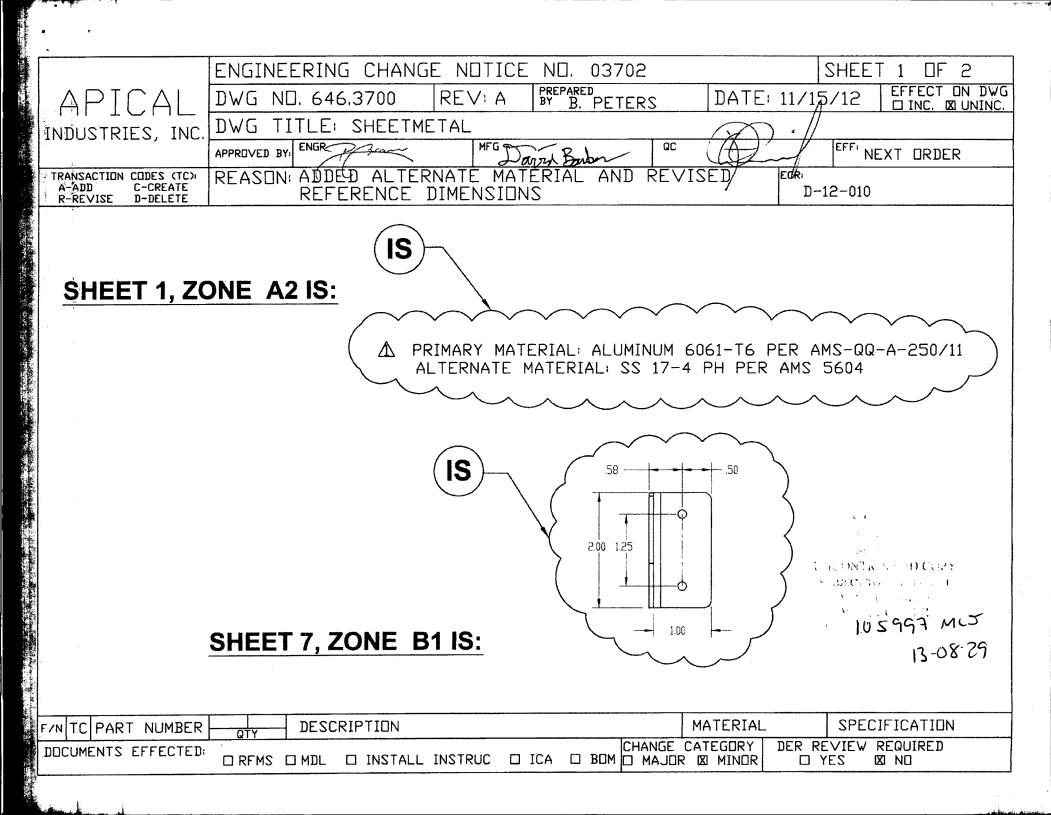
FIRST ARTICLE INSPECTION CHECKLIST

Drawing Dimension	Tolerance	Actual Dimension	Accept	Reject	Method of Inspection	Comments
1.384	1/-0.030"	1.38"			V	Jemoi
6-50"	C1	6.50° 060° 318° 588° 2.38°			V	
0.60° 3.18°	4	060	-		V	
3189	í (318*			V	
5,89ª		588"	-		V	
Q. 397	61	2.38"	-		Ý	
6063"	H-0 010"	0.061			V	
						,
	-					
			DAS 27			

9-89					
Measured by:	JM	Audited by:	13.102	Preliminary Approval:	
Date:	13-10.03	Date:		Date:	

Rev	Date	Change	Revised by	Approved
E	10.04.14	Added preliminary approval	KJ	

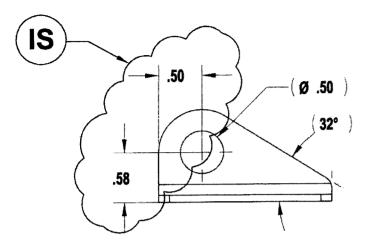
\$ 10.04.15



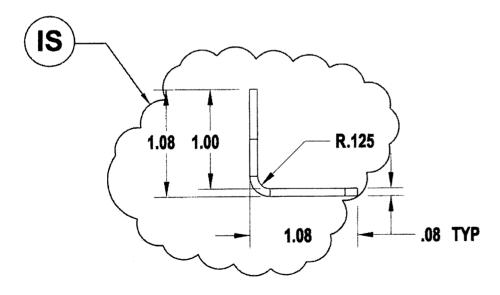
APICAL INDUSTRIES, INC.

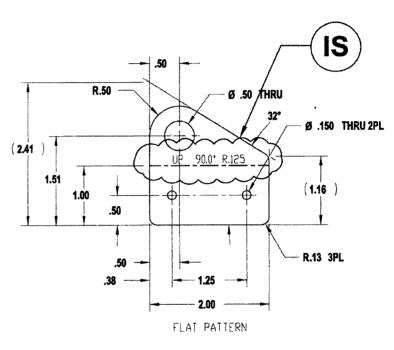
ENGINEERING CHANGE ORDER NO. 03702

SHEET 2 OF 2



SHEET 7, ZONE C4 IS:





SHEET 7, ZONE B7 IS:

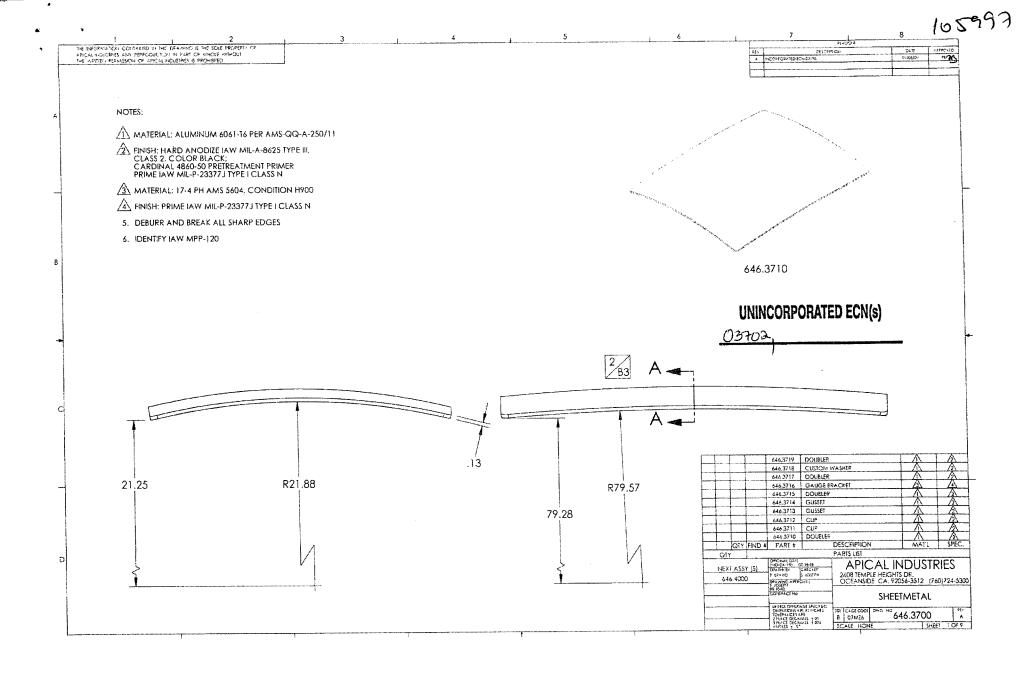
SHEET 7, ZONE D1 IS:

F/N TC PART NUMBER

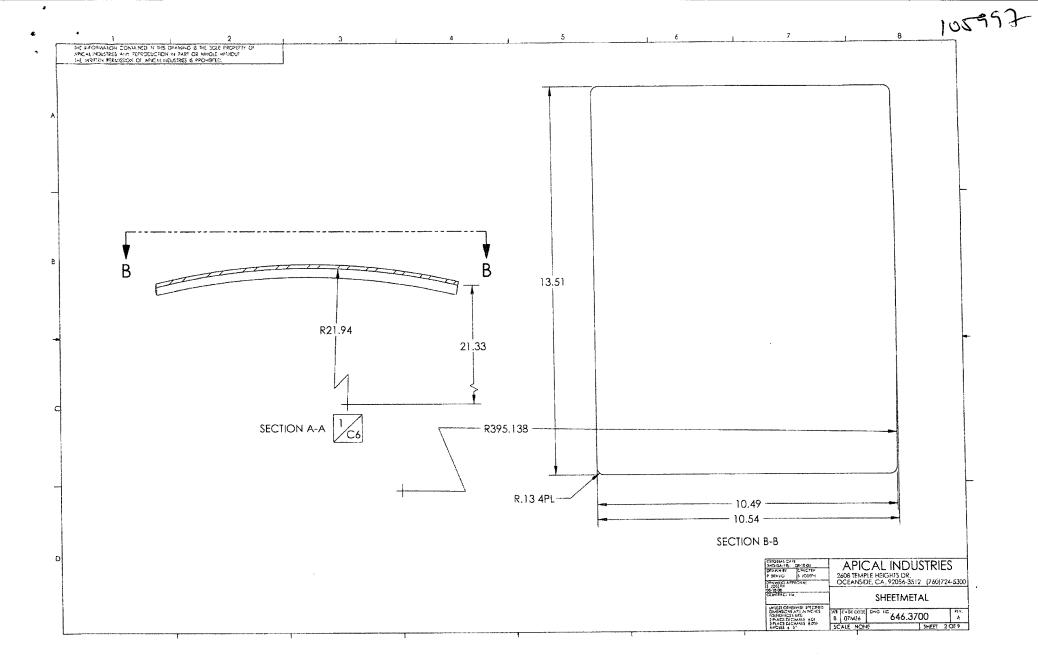
QTY

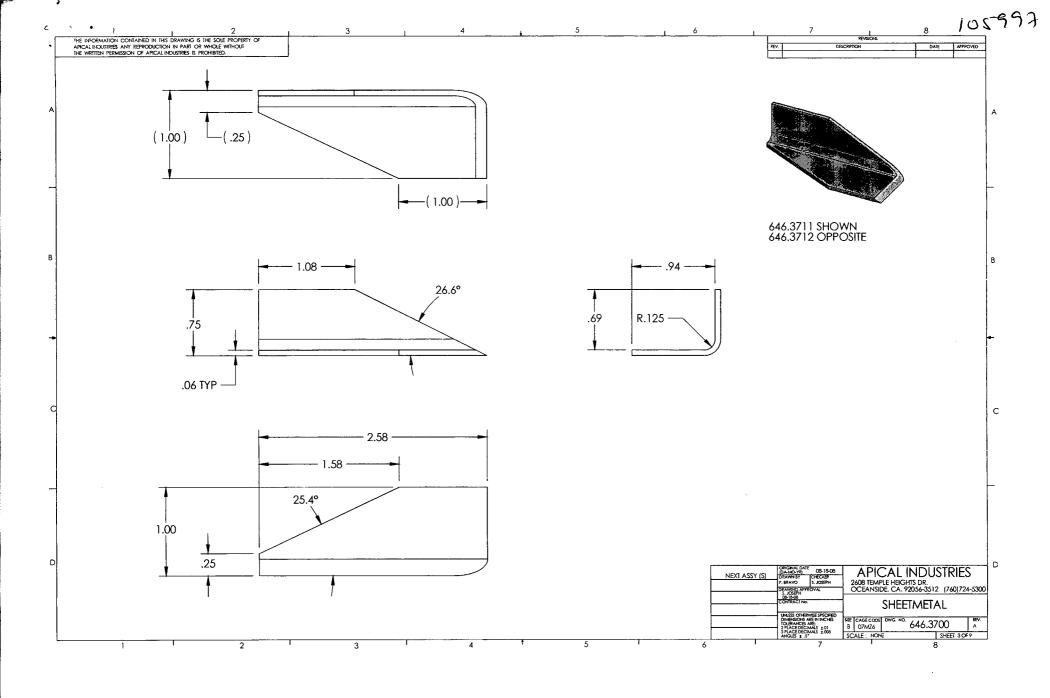
DESCRIPTION

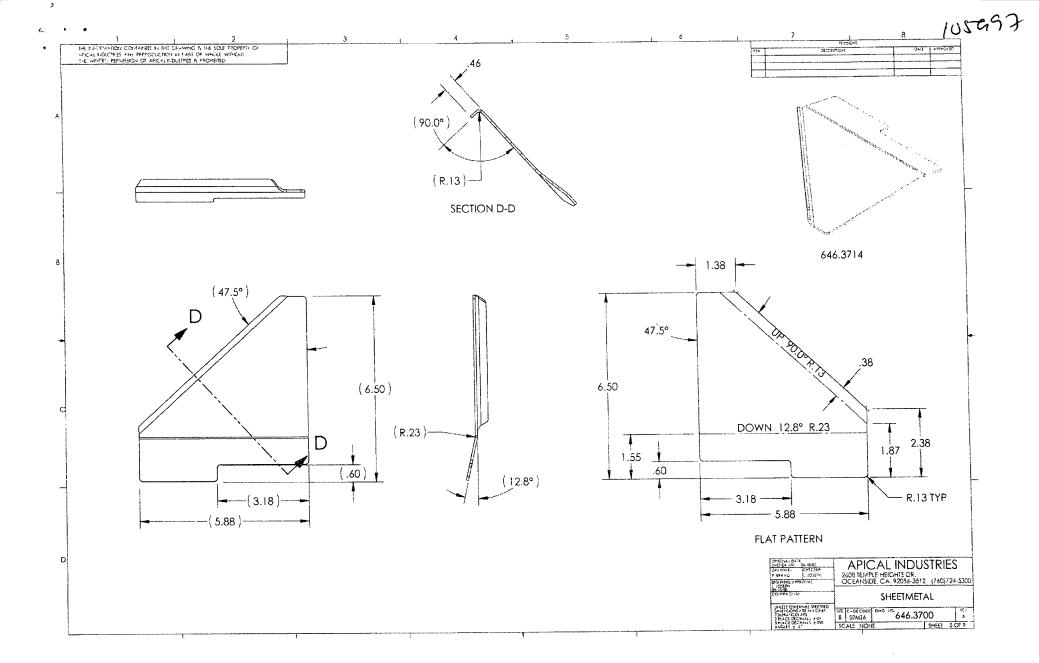
MATERIAL/SPECIFICATION

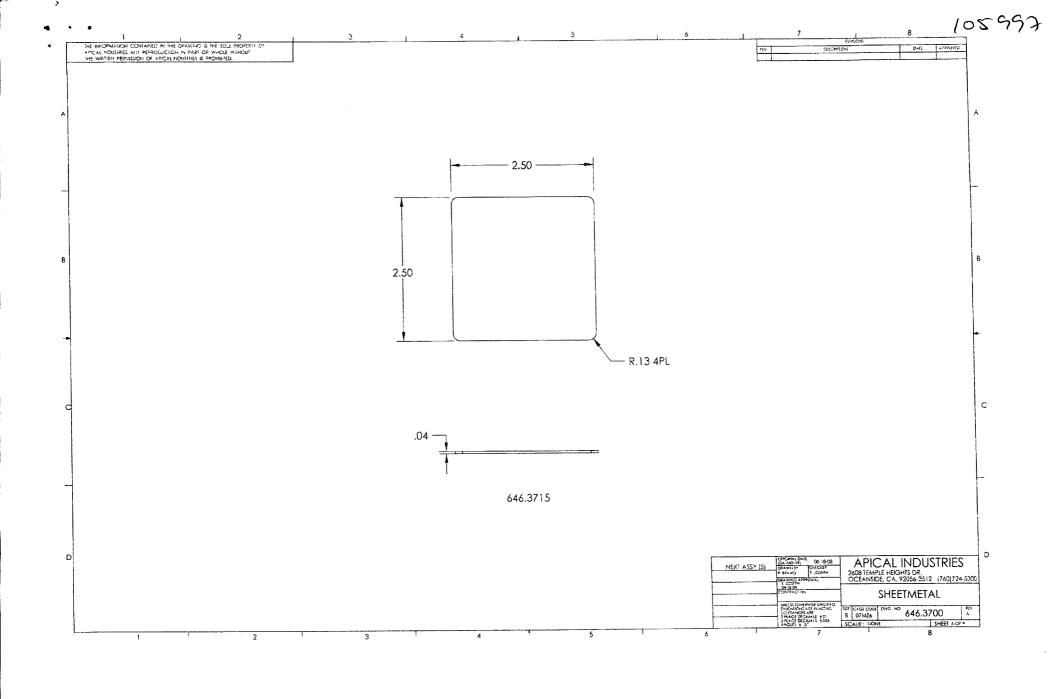


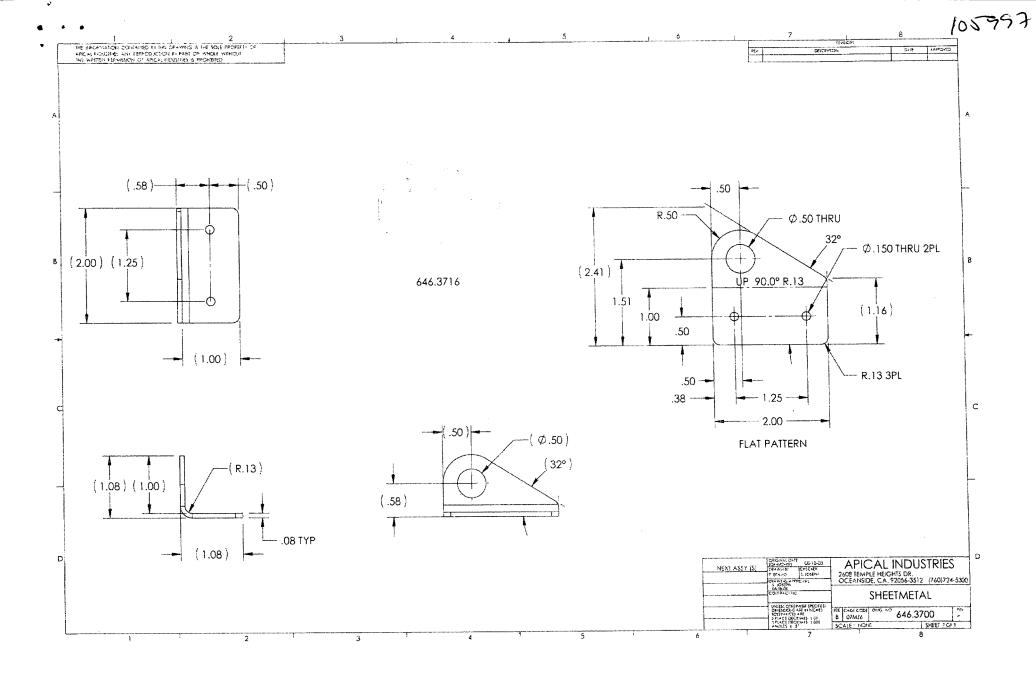
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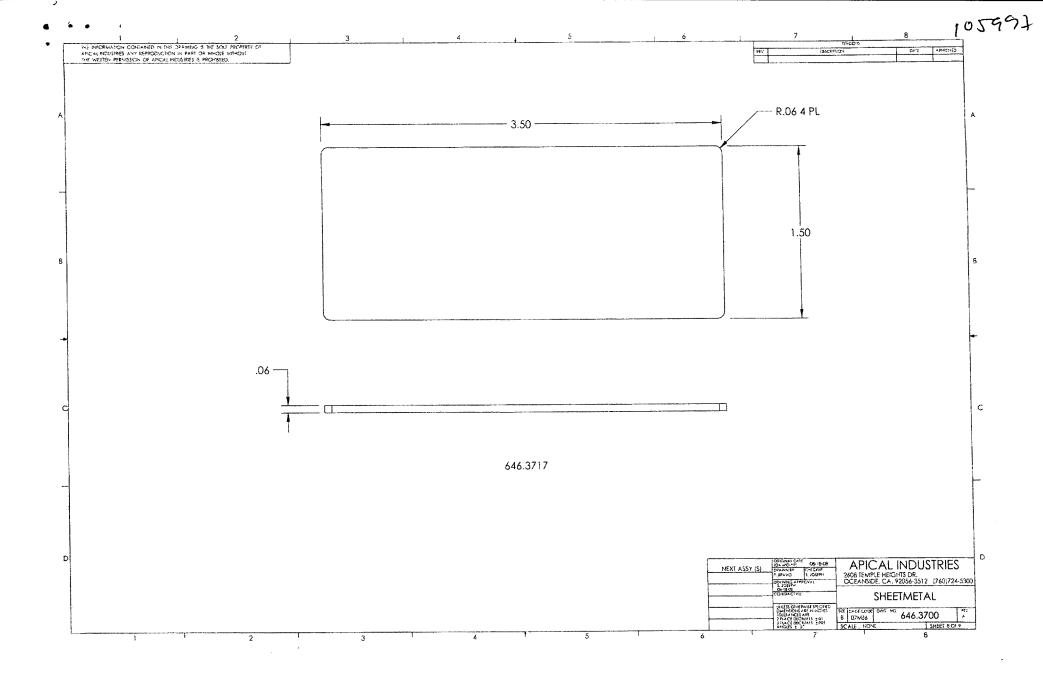




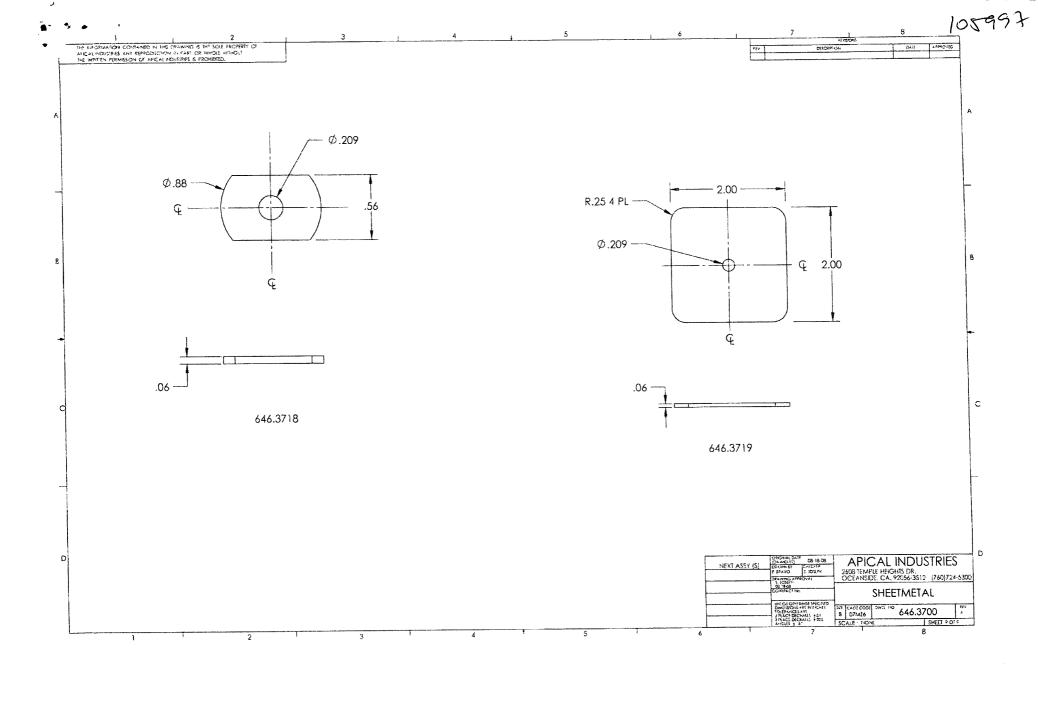








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A.T.G. Industries Inc. 731, rue Industrielle Rd. PLATING DEPARTMENT Rockland, On K4K 1T2 Canada

Ph: (613) 446-4544 Fax: (613) 446-4556

Pack List

Number: 62723

Date: 06-Nov-13

To

DART AEROSPACE LTD 1270 ABERDEEN ST. HAWKESBURY, ON K6A 1K7 Canada Ship To

DART AEROSPACE LTD 1270 ABERDEEN ST. HAWKESBURY, ON K6A 1K7

Canada

Ph: 613-632-5200

Fax: 613-632-1185

Ph: 613-632-5200

Fax: 613-632-1185

Terms		Ship Via				
Quantity	Description	· · · · · · · · · · · · · · · · · · ·				
1	Part: ASST		Rev:			
lot	9 PCS 41232-200-002-005 (1.25) (ALREADY SHIPPED 31/10/13)					
	BLACK ANODIZE MIL-A-8625 TYPE II CLASS 2					
	5 PCS 646.3210 (12.20) 21 PCS 646.3714 (15.75) 3/9 26 PCS 646.3810 (6.55) 18 PCS 646.3811 (6.55)	6 #				
	HARD ANODIZE BLACK MIL-A-8625 TYPE III CLASS 2					
	PRIME MIL-P-23377J TYPE I CLA	ASS N				
	PRICE IS PER PIECE Job: 20130688	PO: 21743	Line: -			
	Certificate of Co	onformance				
*	A.T.G. Industries certifies that all items in this shipment are in conformance with all requirements, specifications and drawings referenced in the purchase order.					
	ISO 9001 : 2008 RE ATG SALES-2010 T DATE : 6/1//3					
	CERTIFIED SIGNATURE :					
	RECEIVER SIGNATURE :					
			÷			